WHAT IS CLAIMED IS

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1. A head assembly comprising:

a mounting surface; and

an integrated circuit chip which is mounted on the mounting surface and processes signals,

said integrated circuit chip being covered by a layer.

2. The head assembly as claimed in claim 1, wherein said layer covering the integrated circuit chip is formed by evaporation.

3. The head assembly as claimed in claim 2, wherein said layer is made of poly(p-xylylene).

4. The head assembly as claimed in claim 1, wherein said integrated circuit chip has a first surface provided with conductor bumps, and a second surface opposite to the first surface, wherein a peripheral portion of the second surface is chamfered.

5. The head assembly as claimed in claim 1, wherein said layer covers at least peripheral portions of the integrated circuit chip.

6. The head assembly as claimed in claim 1, wherein said layer is made of a low-viscosity resin selected from a group consisting of photo-curing resins including ultraviolet-curing resins, and thermosetting resins.

7. The head assembly as claimed in claim 1, which further comprises:

a head slider provided with a head,

a height of the integrated circuit chip, including the layer, from the mounting surface being lower than a height of the head slider from the mounting surface.

8. A disk unit for reading information from and writing information to a disk, comprising:

a head assembly having a mounting surface, a head mounted on the mounting surface, and an integrated circuit chip which is mounted on the mounting surface and processes information read from and/or written to the disk via the head,

said integrated circuit chip being covered by a layer.

9. The disk unit as claimed in claim 8, wherein said layer covers at least peripheral portions of the integrated circuit chip, and said layer is made of a low-viscosity resin selected from a group consisting of photo-curing resins including ultraviolet-curing resins, and thermosetting resins.

10. A semiconductor part comprising:

a main chip body; and

a covering layer formed by evaporation and covering the main chip body.

11. The semiconductor part as claimed in claim 10, wherein a portion of the main chip body is exposed via the covering layer.

12. The semiconductor part as claimed in claim 10, wherein said main chip body has an upper surface, a lower surface and peripheral side surfaces, and further comprising:

an integrated circuit formed on the lower surface of the main chip body;

conductor bumps formed on the lower surface of the main chip body;

an under-filling layer formed on the lower surface of the main chip body, so that tip ends of the conductor bumps are exposed via the under-filling layer,

said covering layer covering the upper surface and the peripheral side surfaces of the main chip body, and covering peripheral side surfaces of the under-filling layer.

13. The semiconductor part as claimed in claim 12, further comprising:

alignment marks provided on the lower surface of the main chip body on outer sides of the integrated circuit,

said under-filling layer having holes exposing the alignment marks.

14. A method of producing an integrated circuit chip which is mounted on and forms a part of a head assembly, comprising the steps of:

(a) forming a first layer on first and second surfaces of a wafer which has conductor bumps formed on one of the first and second surfaces located at opposite sides of the wafer;

(b) dicing the wafer having the first layer into a plurality of chips; and

(c) forming a second layer on peripheral side surfaces of each of the diced chips.

15. A method of producing an integrated circuit chip which is mounted on and forms a part of a head assembly, comprising the steps of:

(a) forming a first layer on a first surface of a wafer which has conductor bumps formed on a second surface of the wafer located at an opposite side from the first surface;

(b) dicing the wafer having the first layer into a plurality of chips in a state where the wafer is adhered on a film, without cutting the film;

(c) separating the film from only peripheral portions of each of the diced chips; and

(d) forming a second layer on each of the chips in a state where the peripheral portions of the diced chips are separated from the film.

16. A method of producing an integrated circuit chip which is mounted on and forms a part of a head assembly, comprising the steps of:

(a) adhering a film on a surface of a wafer which has conductor bumps formed thereon, so as to surround portions on the surface of the wafer, including the conductor bumps, which later become chips by a waved shape of the film;

(b) dicing the wafer having the film into a plurality of chips; and

(c) forming a layer on each of the diced chips.

17. A method of producing an integrated circuit chip which is mounted on and forms a part of a head assembly, said integrated circuit chip having a main chip body and a layer covering the main chip body, said method comprising the steps of:

(a) supplying a predetermined amount of resin

which has a surface tension smaller than a wetting with respect to the main chip body from a nozzle onto an upper surface of the main chip body, said predetermined amount being larger than an amount of the resin required to form the layer;

(b) moving the nozzle near the upper surface of the main chip body to a height corresponding to a thickness of the layer which is to be formed; and

(c) sucking resin by a suction force smaller than the wetting with respect to the main chip body, so as to remove excess resin, to thereby form the layer which covers the main chip body.

18. A method of producing an integrated circuit chip which is mounted on and forms a part of a head assembly, said integrated circuit chip having a main chip body, conductor bumps and a layer covering the main chip body, said method comprising the steps of:

(a) forming the layer on the main chip body and the conductor bumps by evaporation, in a state before crushing pointed tip ends of the conductor bumps;

(b) pushing the conductor bumps against a surface to simultaneously crush the pointed tip ends of the conductor bumps and make the layer covering the pointed tip ends to recede, to thereby expose surfaces at the crushed portions of the conductor bumps.

19. A method of producing an integrated

circuit chip which is mounted on and forms a part of a head assembly, said integrated circuit chip having a main chip body, conductor bumps and a layer covering the main chip body, said method comprising the steps of:

(a) adhering a mold release agent on tip ends of the conductor bumps;

(b) forming the layer on the entire main chip body including the conductor bumps by evaporation; and

(c) removing portions of the layer on the tip ends of the conductor bumps having the mold release agent interposed therebetween, to thereby expose surfaces of the tip ends of the conductor bumps.

20. A bonding apparatus for bonding conductor bumps on a semiconductor chip onto corresponding pads on a substrate by ultrasonic vibration, comprising:

a stage having a receiving surface for receiving a first surface of the substrate opposite to a second surface of the substrate provided with the pads; and

a bonding unit having an end surface for holding a first surface of the semiconductor chip opposite to a second surface of the semiconductor chip provided with the conductor bumps, and a closing member having a closing surface,

said end surface adhering the first surface of the semiconductor chip by suction via a suction hole which opens at the end surface,

said closing member being movable to close the suction hole at the end surface, so that the closing surface and the end surface form a single flat

surface.

21. The bonding apparatus as claimed in claim 20, wherein said bonding unit comprises:

a transport mechanism which transports the semiconductor chip to a position above the stage.

22. The bonding apparatus as claimed in claim 21, wherein said bonding unit further comprises:

a pressing mechanism which presses the semiconductor chip against the substrate which is placed on the stage in a state where the closing member closes the suction hole.

23. The bonding apparatus as claimed in claim 22, further comprising:

an ultrasonic radiator provided on the pressing mechanism and subjecting the semiconductor chip to ultrasonic vibration when bonding the bumps on the corresponding pads.

24. The bonding apparatus as claimed in claim 22, wherein said transport mechanism and said pressing mechanism are independent mechanisms.

25. The bonding apparatus as claimed in claim 22, wherein said transport mechanism and said pressing mechanism are formed by a single mechanism.

26. The bonding apparatus as claimed in claim 22, further comprising:

an ultrasonic radiator provided on the stage and subjecting the substrate to ultrasonic vibration when bonding the bumps on the corresponding pads.

27. The bonding apparatus as claimed in claim 20, wherein the end surface has an area greater than an area of the first surface of the semiconductor chip.

28. A bonding method for bonding conductor bumps on a semiconductor chip onto corresponding pads on a substrate by ultrasonic vibration, comprising the steps of:

(a) placing the substrate on a stage having a receiving surface for receiving a first surface of the substrate opposite to a second surface of the substrate provided with the pads;

(b) holding and transporting the semiconductor chip to a bonding position above the stage by a bonding unit, said bonding unit having an end surface for holding a first surface of the semiconductor chip opposite to a second surface of

the semiconductor chip provided with the conductor bumps by suction via a suction hole which opens at the end surface, and having a movable closing member having a closing surface which forms a single flat surface together with the end surface when the closing member is moved to close the suction hole at the end surface;

(c) pressing the semiconductor chip against the substrate by the end surface in a state where the suction hole at the end surface is closed by the closing member; and

(d) bonding the conductor pads to the corresponding pads by ultrasonic vibration.

29. The bonding method as claimed in claim 28, wherein said step (d) subjects one of the semiconductor chip and the substrate to ultrasonic vibration when bonding the bumps on the corresponding pads.

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